ABSTRACT OF THE DISCLOSURE

The present invention provides a bias generation circuit in which the voltage of electrically isolated circuits are stabilized by providing a photovoltaic diode in each circuit, a common light source uniformly positioned to provide equivalent energy to each photovoltaic diode and an operational amplifier, configured with a capacitor as an integration circuit, driving the common light source, wherein one isolated circuit provides feedback to the amplifier, such that variations in the voltage in the isolated circuit causes the amplifier to provide an adjusted signal to the common light source, adjusting the energy output to compensate for voltage variations simultaneously, yet independently occurring in each isolated photovoltaic diode circuit. Such bias voltage circuit may be used with chromatographic ionization detectors as well other devices.